

EUROPE / NORTH AMERICA

TE HENUA ENATA - THE MARQUESAS ISLANDS

FRANCE



WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

TE HENUA ENATA – THE MARQUESAS ISLANDS (FRANCE) – ID N° 1707

IUCN RECOMMENDATION TO WORLD HERITAGE COMMITTEE: To inscribe the nominated property under natural criteria (vii), (ix) and (x).

Key paragraphs of Operational Guidelines:

Paragraph 77: Nominated property meets natural World Heritage criteria (vii), (ix) and (x).

Paragraph 78: Nominated property meets integrity requirements and protection and management requirements under natural criteria.

1. DOCUMENTATION

a) Date nomination received by IUCN: February 2020

b) Additional information officially requested from and provided by the State Party: Following the session of the IUCN World Heritage Panel, a progress report was sent to the State Party on 20 December 2023, jointly with ICOMOS. This letter advised on the status of the evaluation process and requested supplementary information regarding the protection and planning regime and potential future extensions. The supplementary information was provided by the State Party on 26 February 2024.

c) Additional literature consulted: IUCN's evaluation consulted a wide array of relevant reference material for the geology, geomorphology, protection and management as well as the comparative values of the nominated property. References included: Abdulla, A., Obura, D., Bertzky, B. & Shi, Y. (2013). *Marine Natural Heritage and the World Heritage List: Interpretation of World Heritage criteria in marine systems, analysis of biogeographic representation of sites, and a roadmap for addressing gaps*. IUCN, Gland, Switzerland. xii + 52pp; CEPF (2007). *Ecosystem Profile: Polynesia-Micronesia Biodiversity Hotspot. Critical Ecosystem Partnership Fund (CEPF)*. Available at: <https://www.sprep.org/attachments/47.pdf>; Delrieu-Trottin, E., Williams, J.T., Bacchet, P., Kulbicki, M., Mourier, J., Galzin, R., Lison de Loma, T., Mou-Tham, G., Siu, G. & Planes, S. (2015). *Shore fishes of the Marquesas Islands, an updated checklist with new records and a new percentage of endemic species*. *Check List*, 11, 5; Florence, J., & Lorence, D.H. (1997). *Introduction to the flora and vegetation of the Marquesas Islands*. *Allertonia*, 7(4), pp. 226-237; Gouni, A., Teikiteetini, M., Sulpice, R., Teatiu, L. (2005). *Suivi des populations de Carpophages des Marquises, *Ducula galeata*, aux îles des Marquises*. *Société d'Ornithologie de Polynésie, Papeete*. 20 pp.; IUCN (2004). *The World Heritage List: Future priorities for a credible and complete list of natural and mixed sites. A Strategy Paper prepared by IUCN, April 2004*. Available at: <https://portals.iucn.org/library/sites/library/files/documents/Rep-2004-026.pdf>; Kashiwagi, T., Marshall, A., Bennett, M. & Ovenden, J. (2011). *Habitat segregation*

and mosaic sympatry of the two species of manta ray in the Indian and Pacific Oceans: *Manta alfredi* and *M. birostris*. *Marine Biodiversity Records*, 4, 10.1017/S1755267211000479; Kormos C.F., Badman T., Jaeger T., Bertzky B., van Merm R., Osipova E., Shi Y. & Larsen P.B. (2017). *World Heritage, Wilderness and Large Landscapes and Seascapes*. Gland, Switzerland: IUCN; Magin, C. & Chape, S. (2004). *Review of the World Heritage Network: Biogeography, Habitats and Biodiversity*. UNEP World Conservation Monitoring Centre and IUCN – The World Conservation Union, available at: <https://portals.iucn.org/library/sites/library/files/documents/Rep-2004-015-2.pdf>; Meyer, J.-Y. (1996). *L'île de Mohotani (Motane): état de la biodiversité et principales menaces. Contribution à la biodiversité de Polynésie française N°3. Délégation à l'Environnement, Tahiti*; Syngé, H. (1991). *Which Oceanic Islands merit World Heritage Status? A short feasibility study for IUCN – The World Conservation Union*. Available at: <https://portals.iucn.org/library/efiles/documents/Rep-1991-102.pdf>; Thibault, J.-C. (1992). *Eiao, nécessité absolue d'une réhabilitation de l'île*. *Courr. Nat.* 133: 16-21; Thibault, J.-C. & Cibois, A. (2017). *Birds of Eastern Polynesia. A biogeographic Atlas*. *Barcelona: Lynx Edicions*; WWF/TNC, 2019. *Freshwater ecoregions: Marquesas Islands*. Available at: <https://www.feow.org/ecoregions/details/826>. Accessed Nov 2023; Ziembicki, M., Raust, P. (2003). *Status, distribution and Conservation of the Ultramarine lorikeet (*Vini ultramarina*) in the Marquesas Islands, French Polynesia*. *Société d'Ornithologie de Polynésie, Papeete*. 33 pp.

d) Consultations: 9 desk reviews received. The mission was able to meet with representatives of the Ministry of Culture and Ministry of Ecological Transition, the Vice-President of French Polynesia, representatives of the Environment Department (DIREN), Culture and Heritage Department (DCP) and other agencies. The mission also met *hakaiki* (mayors) and representatives of local councils, representatives of local communities, NGOs and technical experts involved in the preparation of the nomination.

e) Field Visit: Elena Osipova (IUCN) (19 to 28 October 2023) and Ian Lilley (ICOMOS)

f) Date of IUCN approval of this report: May 2024**2. SUMMARY OF NATURAL VALUES**

Te Henua Enata – The Marquesas Islands nomination is found in the Marquesas Islands of French Polynesia, in the southern Pacific Ocean. The archipelago of oceanic, volcanic islands consists of six inhabited islands and numerous islets. Situated in the Pacific Ocean and in the heart of the Polynesian Triangle, the archipelago is one of the most isolated in the world. The islands are characterised by calderas formed through volcanic eruptions and collapse, steep ridges, cliffs and mountains rising up to 1,200 m.

The nominated property of Te Henua Enata – The Marquesas Islands comprises seven nominated component parts located across all of the main islands and some islets (*motu*) of the Marquesas Islands – the northernmost of the five groups of islands comprising French Polynesia. The nominated property includes both marine and terrestrial parts. The terrestrial sections of each nominated component part follow the high ridge line of each island's main caldera, or highest peaks (Ua Pou), and extend to the coastal watersheds. In the case of uninhabited Hatu Tu and Fatu Uku, the entire island is included. The property is nominated as a mixed site, under cultural criteria (iii), (iv), (vi) and under natural criteria (vii), (ix) and (x). The natural values related to criteria (ix) and (x) are based on a wide array of habitats and high levels of endemism both in the terrestrial and marine environments. This includes species that are endemic not only to the archipelago, but also to specific islands and even specific peaks. This is linked to the isolation of the Marquesas Islands. The few species that have crossed the vast ocean and colonised the islands have evolved into many unique species. The marine environment holds one of the highest fish biomasses in the world and has an undisturbed character with preserved trophic chains. It differs from other island groups of Polynesia for the absence of barrier reefs surrounding the islands resulting from complex geological and oceanographic processes.

Nominated component part	Nominated Property (ha)	Buffer zone (ha)
Ensemble mixte de Eiao-Hatu Tu	46,356	-
Ensemble mixte de Nuku Hiva	76,227	5,297
Ensemble mixte de Ua Pou	40,929	485
Aire marine côtière de Ua Huka	34,516	-
Ensemble mixte de Hiva Oa-Tahuata	97,865	952
Ensemble mixte de Fatu Uku	12,225	-
Ensemble mixte de Fatu Iva	37,631	107
Total	345,749	6,841

Table 1: Area of nominated property and buffer zone.

The natural values related to criterion (vii) are based on landscape features comprising sharp ridges, peaks and very steep cliffs. The landscapes features also vary between the islands, with the impressive peaks of

Ua Pou and maritime cliffs of Fatu Hiva rising from the ocean. The State Party also proposed under criterion (vii) several features related to either concentration or behaviour of marine animals. These include the unusual presence in the coastal areas of Melon-headed Wales (*Peponocephala electra*, LC), often in large groups, and mixed congregations of different emblematic marine species, including Spinner Dolphins (*Stenella longirostris*, LC), and Reef Manta Ray (*Mobula alfredi*, VU) and Oceanic Manta Ray (*Mobula birostris*, EN), with the microsympatry (i.e. record of co-occurrence observed at the same site) of the two species considered almost unique in the world.

3. COMPARISONS WITH OTHER AREAS

The nomination dossier provides an in-depth comparative analysis based on a clear definition of natural values and attributes (see ICOMOS' evaluation report regarding the comparative analysis under cultural criteria). Whilst the nomination document presents a synthesis of the comparative analysis, the annex of the nomination dossier includes a detailed assessment of the nominated property's comparative values as well as a detailed description as to what each nominated component parts contributes to the natural values of the serial nominated property. A rigorous comparative framework has been developed providing clear indicators for each criterion.

The State Party also notes IUCN's 2004 evaluation of Pitons Management Area in Saint Lucia, which noted the potential of the Marquesas Islands for their aesthetic values. To compare for instance the attribute of high-altitude summits and ridges under criterion (vii), the nomination identifies an altitude of 400 m as baseline since this is the lowest altitude of the nominated property's summits and ridges. Subsequently, the nomination screened globally World Heritage properties and other volcanic islands not on the World Heritage List, concluding that the Marquesas Islands are among the 20 most "vertical" islands in the world. The impression of brutal verticality emerges from the height of the peaks and ridges in relation to the small terrestrial area from which they rise above the ocean.

Regarding biodiversity criteria, the comparative analysis in the nomination dossier provides an exhaustive overview of conservation priority settings for both terrestrial and marine biodiversity, including IUCN thematic studies. The Marquesas Islands were already suggested for World Heritage listing back in 1991 for their exceptional endemic flora and endemic bird species. The UNEP-WCMC World Heritage datasheets were used to inform the comparative analysis and the IUCN/UN Environment WCMC (UNEP-WCMC) methodology for comparative analyses were applied.

IUCN, in collaboration with UNEP-WCMC, has also undertaken supplementary comparative analysis, focusing on criteria (ix) and (x). The WCMC analysis indicates that the biodiversity that characterises the nominated property appears to be of global

significance, based on the spatial analyses and literature review, with regards to both criteria (ix) and (x). Regarding criterion (ix), the nominated property represents one of the world's last remaining marine wilderness areas. It is found in a geographical area with little representation on the World Heritage List.

The nominated property overlaps with broad-scale global conservation priorities, including a Centre of Plant Diversity, Endemic Bird Area, terrestrial and marine priority ecoregions, that are not yet represented on the World Heritage List. The Marquesas marine province is a nearshore “gap province” (i.e. an underrepresented biogeographic province) and one of 28 nearshore and continental biogeographical provinces without marine World Heritage properties. It is also found in the Polynesia-Micronesia biodiversity hotspot. The islands are extremely rugged in relief and have a diverse landscape, including continuums of vegetation from the coastline to the island peaks, and areas of tropical montane cloud forests. The vegetation is influenced by the isolated position of the archipelago, and the age, size, and elevation of the islands. The coastal waters of the nominated property differ from the rest of French Polynesia and other Pacific tropical landscapes. Notably, the islands are not surrounded by lagoons, and sea temperatures are variable resulting in minimal coral cover and high production of phyto- and zooplankton. The Marquesas Islands freshwater ecoregion includes perennial rivers, such as the Hakau, Taipiva, and Hatiheu on Nuka Hiva, and many intermittent streams in the wet season. The freshwater ecoregion was defined based on distinctive endemic or near-endemic fish species. More than 40% of the fish species are endemic to the ecoregion, all of which are gobiids (i.e. fish of shallow marine, brackish and riverine habitats).

UNEP-WCMC notes that the nominated property shows only average levels of species diversity, regarding plant, mammal, and bird diversity, when compared to other World Heritage properties and other relevant sites found in the same Polynesia-Micronesia hotspot. However, for their size, the percentage of endemism is high in comparison to older archipelagos, whereas the nominated property supports high species endemism due to its extremely isolated position. For instance, it ranks third in the Indo-Pacific region for endemism of coral reef fishes. Of the indigenous vascular flora present on the islands, 42% of species have been recorded as endemic.

Furthermore, the nominated property hosts numerous globally threatened species, including several plant, shark and ray, bird, crustacean, and fish species. The nominated property overlaps with two Important Bird Areas and Key Biodiversity Areas that are not currently represented on the World Heritage List. The nominated property also ranks amongst the top 0.045% most irreplaceable protected areas in the world for mammal, bird and amphibian conservation, especially for bird species (top 0.011%), including threatened species. It has also been highlighted in several thematic studies as a marine wilderness area and a nearshore gap province with no existing World Heritage property, and as a possible site with

outstanding biodiversity and cultural values in Oceania (see ICOMOS' evaluation for cultural values). For instance, the IUCN thematic study on Wilderness and Large Landscapes and Seascapes highlights the Marquesas Islands as a marine wilderness area with no existing World Heritage property. Thematic studies on marine World Heritage list the Marquesas marine province as a nearshore gap province without marine World Heritage properties. The Marquesas Islands are also mentioned amongst possible World Heritage properties with outstanding biodiversity.

The property is one of the few known breeding sites globally for 21 species of seabirds, including *tēiko* (Bulwer's petrel, *Bulweria bulwerii*, LC), *kōputu* (Phoenix Petrel, *Pterodroma alba*, VU), *pītai* (Polynesian Storm-petrel, *Nesofregatta fuliginosa*, EN), and *taa tara* (Grey-backed Tern, *Onychoprion lunatus*, LC), some of them globally threatened. Two species are endemic to single islands: *ōmaō keekee* (Fatu Hiva Monarch, *Pomarea whitneyi*; CR) on Fatu Hiva Island and *pahi* (Marquesas Kingfisher (*Todiramphus godeffroyi*; CR) on Tahuata Island. The *ūpe* (Nakuhiva Imperial-pigeon, *Ducula galeata*; EN) is endemic to two islands, Nuku Hiva and Ua Huka, and the *kōtuē* (Marquesas Ground-dove, *Pampusana rubescens*; EN) is endemic to two islets and has on occasion fallen below 250 individuals. Seven species of plants are assessed as globally threatened on the IUCN Red List of Threatened Species, seven of which are endemic to Marquesas: *kohai* (*Achyranthes marchionica*, CR), *Melicope fatuhivensis* (CR), *tuēiao* (Tu'eiao, *Rauvolfia nukuhivensis*, CR), *fautea*, (*Lebronnecia kokioides*, EN), *Abutilon sachetianum* (CR), *Pipturus schaeferi* (EN), and *puāhi* (*Santalum insulare* var. *marchionense*, VU). Out of 47 species and sub-species of terrestrial and freshwater molluscs, 36 to 39 are endemic to the islands. Eight species of freshwater fish and crustaceans are also endemic to the islands. There are 21 globally threatened shark and ray species reported in the waters of the Marquesas Islands.

In conclusion, IUCN considers that the nominated property presents a strong case for global significance under proposed criteria (vii), (ix) and (x). The inscription of the nominated property would fill a longstanding biogeographical gap on the World Heritage List.

4. INTEGRITY, PROTECTION AND MANAGEMENT

4.1. Protection

The nominated area is protected through a complex combination of protected areas and environmental regulations, including through spatial planning policy and law. For natural values, these include the Environment Code of French Polynesia, which provides for the protection of critical species throughout their distribution range. These listed species include 164 species of plants and 39 species of birds as well as marine species, including marine turtles, manta rays, whales and dolphins. All marine waters of French Polynesia are also designated as

sanctuary for marine mammals and sharks (established through a Decree by the Council of Ministers in 2002). Industrial fishing is prohibited within the marine waters of the nominated property.

The spatial plans, created under the national French Polynesian Planning Code, represent overarching planning documents that regulate all activities throughout the islands, supporting the protection of the nominated property. However, following potential inscription, the protection regime will be further consolidated through an archipelago-wide General Development Plan (PGA), which will officially incorporate the nominated property and its buffer zones as specific zones with corresponding regulations. This process is already underway at the time of this evaluation and is expected to be concluded by the end of 2025.

The field evaluation mission noted the high level of awareness and commitment to the protection of the nominated property and welcomed the development of the integrated PGA as this will consolidate the protection regime for the whole nominated property and its buffer zones. This would also ensure that the protection of the nominated property is fully integrated in planning processes concerning all activities and developments on the islands, which is lacking in many other World Heritage properties. The overarching PGA will also facilitate coherent protection and management across the serial nominated property with regards to both cultural and natural values.

In supplementary information, the State Party provides an additional important commitment to designate additional protected areas through the Environment Code along with additional archaeological sites under the Heritage Code (*arrêté* n°134/CM of 9 February 2024). The same decree also makes reference to a possible designation of marine areas up to three nautical miles.

In conclusion, IUCN notes that the nominated property currently meets protection requirements. However, it will be important to ensure that the new General Development Plan (PGA) fully incorporates the boundaries and buffer zones of the nominated property, as indicated in supplementary information, and to ensure that the spatial planning regime fully supports the protection of these areas.

IUCN considers that the protection status of the nominated property meets the requirements of the Operational Guidelines.

4.2 Boundaries

The nominated property is composed of marine components and terrestrial components, in many cases ensuring a summit-to-sea continuity. The marine areas have a uniform approach to their boundaries, which are drawn three nautical miles from the coast. For the terrestrial parts, the boundaries of each of the nominated component parts have been proposed based on a number of principles, mainly aimed at

including the areas with the most important landscape features supporting criterion (vii), and the most intact natural vegetation in support of criteria (ix) and (x). In addition, the boundaries of the mixed nominated property are designed to represent both the cultural and natural values. As a result, the terrestrial boundaries are complex and varied across the different nominated component parts.

However, it should be noted that the final proposal is also a result of a comprehensive participatory process involving both technical experts and local communities. Over the years, this allowed for the identification of not only the most important areas for natural and cultural values, but also of the delineation that would be implementable from the point of view of land ownership, cadastral registration and of future management. This nomination therefore represents a strong bottom-up approach that aimed at jointly identifying the best possible boundaries for the nominated property.

The exclusion of terrestrial areas from the island of Ua Huka is explained by the lower plant diversity. Whilst Ua Huka also stands out in terms of the level of endemism of terrestrial bird species, including threatened species, in the overview prepared by the State Party as part of the comparative analysis, the lower altitudes of Ua Huka imply conditions unfavourable for the formation of cloud forests. In addition, there are no important cultural areas and/or objects that are not already represented on the other islands.

The overall approach to the boundaries has successfully attained the representation of a complete continuum of landscape and seascape as well as areas of cultural value (see ICOMOS evaluation) combined with the existing protected areas and the wider protection regime. In this respect, it should also be noted that the nominated property is subject to only very limited development pressures and resource use (see section 4.5).

Buffer zones are only proposed for the terrestrial areas, as pressures on the marine environment are limited, partly thanks to the remote location of the nominated property. The nomination dossier argues that the distance of three nautical miles encompasses the most important marine habitats, as well as areas where emblematic species concentrate, such as Manta Rays and dolphins. The marine boundary also largely represents the geological border as it includes the slope of the volcanic plateau. In addition, all the *motu* within the marine boundaries are included in the nominated property for their importance as breeding areas for marine birds.

Regarding the terrestrial areas, no buffer zone is proposed on the uninhabited islands of Eiao, Hatutu and Fatu Huku, as they are included in their entirety within the nominated property. On Nuku Hiva, Hiva Oa, Tahuata and Fatu Hiva, the buffer zones have been proposed in areas adjacent to the nominated property where there is a need to address pressures, such as from residential areas and plantations. The buffer

zones have therefore been designed based on the identification of threats (see section 4.5).

Overall, IUCN considers that the boundaries of the nominated component parts and the terrestrial buffer zones meet the requirements of the Operational Guidelines. IUCN welcomes the participatory process that enabled a robust boundary design for the nominated property.

IUCN considers that the boundaries of the nominated property and buffer zones meet the requirements of the Operational Guidelines.

4.3 Management

A long-term management plan has been developed for the nominated property for the period from 2024 to 2039. The mission understood that the management plan has been approved and will enter into force in 2024 upon examination of the nomination by the World Heritage Committee. The management plan is based on the proposed Statement of Outstanding Universal Value and the identified values and attributes. It includes a clear action plan based on four strategic objectives: Improving the knowledge and conservation of natural and cultural heritage; developing a tourism policy that is compatible with the natural and cultural heritage; Connecting all stakeholders through the management of the joint property; and promoting a participatory governance. These strategic objectives are broken down to 11 operational objectives and 24 actions, each underpinned by activities with measurable results. Each activity includes a timeline and responsibilities for their implementation. The field evaluation mission considered that for natural values, some aspects will continue to require significant capacity and ongoing management. This is particularly the case for the control of invasive species, which is identified as a high priority in the management plan. Possible additional eradication campaigns in the future may need to be considered. In addition, IUCN considers, further to section 4.1, that the General Development Plan should be informed by the nominated property's management plan.

The management committee, led jointly by the Minister for Culture, the Environment, and Marine Resources of French Polynesia and the President of the Community of Mayors of the Marquesas Islands (CODIM), is responsible for overseeing the shared governance of the nominated component parts and buffer zones. Daily management is ensured by the Environment Department (DIREN) and the Culture and Heritage Department (DCP). A coordination unit has been created and a coordinator specifically for the nominated property has been appointed. This coordinator is employed by the Community of Mayors of the Marquesas Islands (CODIM) – a coordination structure for the Marquesas Islands, thus also ensuring coordination across the six islands that are hosting the nominated component parts. The unit coordinates the implementation of the Management Plan. This includes the management programme for the control and management of invasive species. It is also planned to

create a position within the government of French Polynesia for a coordinator who would be the counterpart of the coordinator at the Marquesas Islands. The management agencies of French Polynesia hold the main competencies regarding the environment and cultural heritage, among others. Further relevant agencies of French Polynesia include the Directorate of Marine Resources (DRM) and the Directorate of Agriculture (DAG).

The nominated property includes both public (54.26%) and private (45.74%) lands. Private land ownership is particularly widespread in the valleys where most of the cultural values of the nominated property are concentrated. In many cases, private landowners have already been involved in the management for a long time. There is strong support from private landowners for the nomination as far as the mission could observe. All marine areas of the nominated property are part of the marine public domain of French Polynesia, which also includes 50 metres of coastline. Similarly, rivers are also part of the public domain. In the buffer zones, 71.4% of land is public. Privately owned lands are mainly concentrated in the settlements proposed to be included in the buffer zones.

The monitoring is based on the definition of values and attributes with clear indicators and responsibilities. IUCN notes that ICOMOS suggests revising the monitoring programme to strengthen the reflection of the interconnections between the cultural and natural values of the nominated property. IUCN agrees with ICOMOS that the interlinkage of cultural and natural values is fundamental to the management of the nominated property. In principle, the nomination represents a commendable effort in integrating both natural and cultural values as well as related integrity, protection and management within a coherent boundary design. To effectively ensure that this approach will be continued and further reinforced following a potential inscription of the nominated property, IUCN joins ICOMOS in recommending that the capacity of the coordination unit should be further strengthened in acting as the central institution for managing the serial nominated property, and in facilitating the collaboration between the different institutions with responsibilities in the management of the nominated property.

Overall, IUCN considers that the nominated property meets management requirements and that it is subject to a rigorous and complete management plan based on the proposed OUV. IUCN recommends further strengthening the capacity of the coordination unit following the potential inscription on the World Heritage List.

IUCN considers the management of the nominated property meets the requirements of the Operational Guidelines.

4.4 Community

Historically, the *Ēnata* built their settlements primarily in the deeply incised valleys. In spite of the severe

consequences of European colonisation (almost 95% of the *Ēnata* perished following the introduction of diseases, alcohol, muskets, etc.), traditional knowledge and worldviews survived and provide insights into the life of the *Ēnata*, including their relationship with the environment. The application of a system of *tapu* (restrictions) traditionally regulates access to certain areas and resources. In supplementary information, the State Party provides details about the *kahui* (traditional community-based management of natural resources). IUCN encourages State Party to strengthen the role of the *kahui* and related customary practices within the management system.

Nowadays most inhabitants live in small villages and in two small towns of Atuona, Hiva Oa, and of Taiohae, Nuku Hiva. IUCN notes that the nomination itself appears to be the result of several years of participatory work and engagement of local stakeholders in the development of the proposal. In all six municipalities, associations have been established specifically for World Heritage and consultations continue along with outreach campaigns. The governance of the nominated property is representative of the situation in the Marquesas Islands in general, with very strong local involvement in different areas. Engagement of all six inhabited islands is ensured through the involvement of each of the *hakaiki* (mayors) in the CODIM. The *hakaiki* have very close relationships with the local inhabitants. One concern that was raised by local people was whether World Heritage listing would affect tenure rights. In response, it was confirmed by the Vice-President of French Polynesia that tenure rights will remain unaffected. It is expected that local communities will continue to be actively involved in the management of the nominated property.

Desk reviewers specialised in human rights-based approaches noted that the nomination process appears to have been very inclusive and that a remarkable effort has been made to inform inhabitants of the islands and to involve them in the process of preparing the nomination document. Stakeholder engagement included, *inter alia*, a communication audit prior to local communication actions on World Heritage, in order to provide the most comprehensive information in a way that is best suited to Marquesan behavioural codes. Subsequently, in the first phase, the entire Marquesan population was informed about the stakes involved in a potential World Heritage listing. In the second phase, the majority of the population was involved in the nomination project, including through participatory workshops to develop the management plan of the nominated property. Internal meetings within the communities were also encouraged. Participatory consultation workshops open to all community members identified issues and designed actions. Special emphasis is placed upon the importance of youth and their engagement as the heirs of the nominated property. Based on the information available, reviewers considered that this engagement process has been very comprehensive and has provided ample opportunity to all rightsholders and stakeholders to engage in the process and found

exemplary the planned future involvement of local rightsholders and stakeholders in the management of the nominated property.

4.5 Threats

From the outset, it is important to note that the natural values of the nominated property are highly fragile. Due to the restricted ranges and specific adaptations, many species are particularly vulnerable to threats and disturbance. Some species are even limited to single islands, peaks, or valleys. Therefore, the island ecosystems are also highly vulnerable to invasive species. For instance, populations of the Critically Endangered and endemic molluscs of *Samoana bellula*, *Samoana decussatula* and Pilsbry's Tree Snail (*Samoana pilsbryi*) have been impacted by the carnivorous snail *Euglandina rosea*, which was introduced in the early 1900s. Once plentiful, *Samoana bellula* is now only found on the highest peaks, and Pilsbry's Tree Snail is thought to be possibly extinct.

Both the nomination document and the management plan assess threats with commendable attention to detail, specifying threats on each island and in relation to each attribute of the proposed OUV. This informs management action to address these threats. However, the integrity of the marine ecosystem hinges on global-scale factors. Climate change affects the nominated property through sea level rise and droughts. Industrial fishing elsewhere affects many marine species in the nominated property. For instance, the Critically Endangered Scalloped Hammerhead (*Sphyrna lewini*, CR) and Oceanic Whitetip Shark (*Carcharhinus longimanus*, CR) are both large species occurring globally in warm-temperate and tropical seas and are caught intentionally and as bycatch. Consequently, they have shown steep declines in population numbers. The Vulnerable Sperm Whale (*Physeter macrocephalus*) is geographically widespread, with a large population, but threatened by large-scale commercial whaling. Fishing regulations prevent any significant pressures in the marine parts of the nominated property whilst providing for small-scale fishing to the benefit of local communities.

The most important direct threat to the natural values of the nominated property are invasive alien species (IAS) and the presence of feral animals (goats, cattle, horses, pigs, cats), including some agricultural activities. IUCN notes that ICOMOS considers IAS also as a threat to the nominated property's cultural values. IAS include both plant and animal species, some introduced already by the first Polynesian settlers whilst others are more recent introductions. Species of *falcata*, *miconia* and *acacia* as well as the Japanese tulip tree threaten the integrity of the thus far well preserved but vulnerable plant formations of the nominated property. The impacts of these IAS have been particularly dramatic for the avifauna of the Marquesas, similar to almost every other island in the Pacific, with some species of endemic birds becoming extinct in the past. One of the endemic species still present in the nominated property – the *òmaò keekee*

(Fatu Hiva monarch, *Pomarea whitneyi*, CR) – is currently assessed as Critically Endangered having undergone a severe decline of 97-99% of the population in the last 20 years following the arrival of the House Rat (*Rattus rattus*, LC) to the island of Fatu Hiva, whilst feral cats also played a role in the decline. The current population is estimated at as few as 18 individuals. The mission considered that there may still be the possibility of species survival thanks to intensive programmes undertaken by the Ornithological Society of Polynesia (SOP MANU) in collaboration with international partners, including the initiation of a captive breeding programme.

As noted above, the context of the nominated property is different from the situation in many other parts of the world where development and resource extraction pressures are considerably higher. Large-scale development projects are unlikely in the future due to remoteness and strong regulations on all three levels of governance (France; French Polynesia; Marquesas Islands). From what the mission could observe, there also appears to be no known considerations of potential mineral resources extraction. French Polynesia has recently introduced a moratorium on deep-sea mining. Tourism currently plays a minor role with annual visitor counts of only around 10,000 people.

In conclusion, IUCN highlights that the nominated property, including its boundaries, has been designed through a bottom-up approach involving significant consultations and enabling the identification of areas that not only adequately represent but also protect the proposed OUV. The proposed OUV determines the management of the nominated property and threats are carefully assessed and addressed in the Management Plan. Therefore, IUCN considers that the boundaries and the protection and management regime of the nominated property meets the requirements of the *Operational Guidelines*.

In summary, IUCN considers that the integrity requirements and protection and management requirements of the *Operational Guidelines* are met.

5. ADDITIONAL COMMENTS

5.1 Consideration in relation to serial properties

a) What is the justification for the serial approach?

The serial approach is justified as the nominated property seeks to represent an archipelago that extends over several hundred kilometres. The terrestrial areas proposed on each of the selected islands present different compositions of vegetation types and endemic species of plants and birds. This approach allows the integration of the most representative and best-preserved areas of the different types of ecosystems, particularly cloud and mesophile forests, across the islands. The landscape features supporting criterion (vii) also vary significantly between the islands as a result of the specific volcanic

history of each of them, but jointly they convey the outstanding natural beauty of the Marquesas Islands.

b) Are the separate component parts of the nominated property functionally linked in relation to the requirements of the *Operational Guidelines*?

Each of the separate nominated component parts contribute to the proposed OUV, particularly with regards to the areas representing different vegetation types and including habitats of endemic plant species and terrestrial birds. The *motu* also add important breeding grounds of seabirds. They are therefore linked in a way that accurately represents the biodiversity of the Marquesas islands. Marine species migrating between the nominated marine parts and beyond provide further functional links.

c) Is there an effective overall management framework for all the component parts of the nominated property?

The overall management framework is represented by the coordination through the CODIM, the management plan for the serial nominated property and the creation of the new PGA that will incorporate the entire nominated property and its buffer zones. Similarly, the coordination unit covers the entire nominated serial property. Therefore, the overall management framework is included into the most important overall planning and management frameworks for the whole of the Marquesas Islands.

6. APPLICATION OF CRITERIA

The **Te Henua Enata – The Marquesas Islands (France)** has been nominated under natural criteria (vii) and (ix) and (x).

Criterion (vii): Superlative natural phenomena or natural beauty or aesthetic importance

The nominated property results from the volcanic past of the Marquesas Islands, which are marked by sharp ridges, impressive peaks and cliffs that rise abruptly more than 1000m above the ocean. The nomination dossier demonstrates that the Marquesas Islands are among the most “vertical” islands in the world creating an impression of brutal verticality. The lush vegetation combined with the diversity of the landforms and jagged coastlines create island landscapes unparalleled in these tropical latitudes. The relief is in direct contact with the open ocean, providing natural promontories for observing the spectacle of wildlife: Dolphins gather in shoals of several hundred individuals at the foot of the cliffs, combined with the simultaneous presence of two species of rays: Reef Manta Ray and Oceanic Manta Ray whose microsympatry (i.e. record of co-occurrence observed at the same dive site) is highly unusual and almost unique in the world. Together, they form a majestic picture of a wild and spectacular nature.

IUCN considers that the nominated property meets this criterion.

Criterion (ix): Ecosystems/communities and ecological/biological processes

The nominated property represents the only isolated archipelago in the middle of the equatorial Pacific. Thus, the Marquesas serve as an oasis of marine life in the immense Pacific Ocean. The nomination highlights that the property is isolated from the major ocean currents by the counter-current of the Marquesas. The Marquesas holds one of the highest fish biomasses in the world, averaging 3.30 T/ha and up to 20 T/ha. Marquesan waters are home to exceptional endemism in relation to the surface area of the property for coastal fish (13.7%) and molluscs (10%), i.e. 3,400 km². The Marquesan coastal communities are a major centre of endemism in the Indo-Pacific and worldwide, along with Hawaii, Easter Island and the Red Sea. Recognised as one of the world's last marine wilderness areas, Marquesan waters offer some of the best-preserved coastal ecosystems on the planet. On land, the property retains two complete continuums of vegetation from the summits to the coast and brings together four sets of tropical cloud forests.

IUCN considers that the nominated property meets this criterion.

Criterion (x): Biodiversity and threatened species

The nominated property combines marine and terrestrial ecosystems that are rare for their level of conservation and their irreplaceability. The nomination highlights the isolation of the young volcanic islands of the Marquesas archipelago, which has resulted in a rare and diverse flora, with more than half of the 305 plant species in the property being irreplaceable. Endemism is mainly found in the dry and semi-dry coastal forests and in the hygrophilous and rainforests. The cloud forests that cover the crests and peaks of the islands of Nuku Hiva, Ua Pou, Tahuata and Fatu Iva are home to more than 70% of the species endemic to a peak, an island or the archipelago. For instance, the clear majority of terrestrial and freshwater molluscs are endemic to the islands. The archipelago is home to one of the most diverse seabird assemblages in the tropical waters of the South Pacific. It is one of the few known breeding sites in the world for 21 species of seabirds and 13 species and subspecies of land birds are endemic to the archipelago. Fatu Iva and Tahuata are respectively home to an endangered endemic species, *òmaò keekee* (around 30 individuals), and the *pahi* (less than 300 individuals estimated in 2017). The property hosts many threatened species, such as *pītai*, *ùpe* and the *kōtuè*. The coastal marine ecosystem is home to 40 emblematic species, including 16 marine mammals, 26 rays and sharks, and 1 endangered marine turtle, all concentrated around the 12 islands that make up the archipelago and many of which are globally threatened. More than 40% of the fish species are

endemic to the ecoregion, all of which dwell in shallow marine, brackish and riverine habitats.

IUCN considers that the nominated property meets this criterion.

7. RECOMMENDATIONS

IUCN recommends that the World Heritage Committee adopts the following draft decision, noting that this will be harmonised as appropriate with the draft recommendations of ICOMOS regarding their evaluation of this mixed site nomination under the cultural criteria and included in the working document WHC/24/46.COM/8B.

The World Heritage Committee,

1. Having examined Documents WHC/24/46.COM/8B and WHC/24/46.COM/INF.8B2,

2. Inscribes **Te Henua Enata – The Marquesas Islands, France**, on the World Heritage List under criteria (vii), (ix) and (x);

3. Adopts the following Statement of Outstanding Universal Value:

Brief synthesis

The serial property is a hotspot for terrestrial and marine biodiversity in the Pacific. The archipelago systematically ranks first or second for its endemism of vascular flora, terrestrial and marine avifauna, terrestrial and marine molluscs and freshwater fish, spread across a wide diversity of natural habitats ranging from coastal formations to ridge-top maquis that can exceed 1,000 m in altitude. Lacking the reefs usually found in this type of oceanic island in the eastern Pacific, Marquesan waters are an exceptional example of a tropical archipelago ecosystem with very high primary productivity. Exceptional for the endemism of coastal fish and marine molluscs, the waters of the Marquesas archipelago have been identified as the wildest coastal marine province in the world. They are among the world's main sites with the highest coastal biomass, dominated by top predators. The marine ecosystem is virtually free from human exploitation. The archipelago also offers a great diversity of emblematic marine species (rays and dolphins) and nesting seabirds. Biological and ecological processes have hardly been disturbed, making the Marquesas Islands a remarkable model of the evolution of species in an oceanic island environment.

Criterion (vii)

Resulting from their volcanic past, the Marquesas Islands are marked by sharp ridges, impressive peaks and cliffs that rise abruptly more than 1000m above the ocean. The Marquesas Islands are among the most "vertical" islands in the world. The lush vegetation combined with the diversity of the landforms and jagged coastlines create island landscapes unparalleled in these tropical latitudes. The relief is in direct contact with the open ocean, providing natural

promontories for observing the spectacle of wildlife: Dolphins gather in shoals of several hundred individuals at the foot of the cliffs, combined with the simultaneous presence of two species of rays: Reef Manta Ray and Oceanic Manta Ray whose microsympatry (i.e. record of co-occurrence observed at the same dive site) is highly unusual and almost unique in the world. Together, they form a majestic picture of a wild and spectacular nature.

Criterion (ix)

As the only isolated archipelago in the middle of the equatorial Pacific, the Marquesas are an oasis of marine life in the immense Pacific Ocean. The property is isolated from the major ocean currents by the counter-current of the Marquesas. The Marquesas holds one of the highest fish biomasses in the world, averaging 3.30 T/ha and up to 20 T/ha. Marquesan waters are home to exceptional endemism in relation to the surface area of the property for coastal fish (13.7%) and molluscs (10%), i.e. 3,400 km². The Marquesan coastal communities are a major centre of endemism in the Indo-Pacific and worldwide, along with Hawaii, Easter Island and the Red Sea. Recognised as one of the world's last marine wilderness areas, Marquesan waters offer some of the best-preserved coastal ecosystems on the planet. On land, the property retains two complete continuums of vegetation from the summits to the coast and brings together four sets of tropical cloud forests.

Criterion (x)

The property combines marine and terrestrial ecosystems that are rare for their level of conservation and their irreplaceability. The isolation of the young volcanic islands of the Marquesas archipelago has resulted in a rare and diverse flora, with more than half of the 305 plant species in the property being irreplaceable. Endemism is mainly found in the dry and semi-dry coastal forests and in the hygrophilous and rainforests. The cloud forests that cover the crests and peaks of the islands of Nuku Hiva, Ua Pou, Tahuata and Fatu Iva are home to more than 70% of the species endemic to a peak, an island or the archipelago. For instance, the clear majority of terrestrial and freshwater molluscs are endemic to the islands. The archipelago is home to one of the most diverse seabird assemblages in the tropical waters of the South Pacific. It is one of the few known breeding sites in the world for 21 species of seabirds and 13 species and subspecies of land birds are endemic to the archipelago. Fatu Iva and Tahuata are respectively home to an endangered endemic species, òmaò keekee (around 30 individuals), and the pahi (less than 300 individuals estimated in 2017). The property hosts many threatened species, such as pītai, ūpe and the kōtuē. The coastal marine ecosystem is home to 40 emblematic species, including 16 marine mammals, 26 rays and sharks, and 1 endangered marine turtle, all concentrated around the 12 islands that make up the archipelago and many of which are globally threatened. More than 40% of the fish species are endemic to the ecoregion, all of which dwell in shallow marine, brackish and riverine habitats.

Integrity

The archipelago's islands and seascapes are mostly intact and host only a small human population concentrated on the coastline. Up to 88% of plant diversity of the archipelago is represented within the property. 100% of the diversity of marine avifauna, i.e. 21 breeding species, and 78% of the diversity of terrestrial avifauna are also represented within the property. All the catchment areas and main rivers are included in the property, with 91% of freshwater fish and crustacean species represented. The plant formations are well preserved but very sensitive to biological invasions. Species of falcata, miconia and acacia as well as the Japanese tulip tree are the main plant species threatening the integrity of the property. Farming activities, with the wandering of animals and the outbreak of uncontrolled fires, constitute a pressure at medium altitude that needs to be controlled locally. The Marquesan ecosystems are the least disturbed between 800 and 1200 m altitude.

The property protects all the coastal waters used for the life cycle of seabirds, coastal fish, molluscs and crustaceans, as well as 43 emblematic marine species that live in or visit these waters. Identified as the wildest coastal marine province in the world, Marquesan waters have a remarkable integrity of the trophic chain, with a remarkable biomass of coastal fish and an exceptional proportion of large predators. The effects of climate change on the distribution, life traits and life cycles of the species are as yet unpredictable. The property includes the entire length of the four richest rivers in the archipelago, as well as two complete continuums of vegetation, with a view to maintaining the essential functions for the life cycle of the species and facilitating their adaptation.

Protection and management requirements

Special regulatory requirements for the property and the buffer zone will be incorporated into the PGA in line with the commitment of the six Marquesas communes grouped together in the Community of Mayors of the Marquesas Islands (CODIM) and the French Polynesian authorities. Sites classified under the Environment Code include two category V Protected Landscapes (Hohoi Bay on Ua Pou and Hanavave Bay on Fatu Iva) and two category IV Habitat and Species Management Areas (Eiao and Hatu Tu). All of Polynesia's waters are a sanctuary for marine mammals and all shark species. Industrial fishing is banned within the property. Species protection prohibits the removal of species from their natural environment and the alteration of their natural habitat. It covers 164 plant species, 39 bird species, all marine mammals, sharks, rays and sea turtles, as well as certain terrestrial and marine molluscs. Fishing, agriculture and biosecurity also benefit from regulatory protection measures, in particular the reduction or even ban on pesticides and reinforced action against invasive alien species.

The strategy to combat invasive species is a common priority for the conservation of the cultural and natural values of the property. This includes measures to prevent their introduction and spread, early detection and eradication. The environmental assessment of projects should include an analysis of the potential

impact on the integrity and authenticity of the property. In the agricultural areas adjacent to the property, management will aim to improve sound agricultural practices, limit and contain fire outbreaks and restrict the areas accessible to feral animals. The development requirements and conservation measures may be reinforced on the basis of the inventory of emblematic viewpoints and archaeological sites, entrances to the property and visitor reception areas.

Local management of the property is based on the creation of a World Heritage association in each of the archipelago's six communes, enabling the involvement of local residents, associations and professionals. Alongside the work carried out by the local technical services, these associations are involved in implementing the operational part of the management plan, the strategic guidelines which are defined by the management committee co-chaired by the Minister for

Culture, the Environment and Marine Resources of French Polynesia and the President of CODIM. Management is co-led by the ministry, CODIM and the six World Heritage associations through a coordination unit. Participatory governance of the property is essential to ensure that the management plan is anchored locally and to capitalise on the effectiveness of customary practices.

4. Recommends the State Party, regarding natural values, to:

- a) Consider further strengthening action against invasive alien species, including through further funding,
- b) Consider in future the potential extension of the marine boundaries of the property to enhance coverage and protection of marine habitats.

Map 1: Location of the nominated component parts

